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Original Article

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Prevalence of Depression, Anxiety and Stress among Higher Secondary School Students by Using DASS-21 Scale

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ABSTRACT

Background: Adolescence is a very difficult period marked by various sexual, physical and psychological changes. This stress, combined with pressure to perform academically, can lead to depression, anxiety, and suicidal tendencies. Studies show alarming prevalence rates, with 1.5% of students experiencing depression and 48.6% reporting depression and anxiety. Early diagnosis and support are important to prevent long-term consequences and promote mental well-being.

Methods: A Cross-Sectional study was carried out from July 2024 to August 2024 among 399 Higher Secondary School students from four schools in the field practice area of the Tertiary Care Centre.

Results: Overall anxiety prevalence was 51.63%, followed by stress (64.66%) and depression (31.58%). There was variation in the level of depression, anxiety, and stress in the current study, which showed a higher percentage of anxiety in comparison to stress and depression.

Conclusion: Higher anxiety, stress, and depression could affect individual mental health both in the short and long term. These mental health challenges may hinder the academic as well as personal growth of students.

Key-words: Depression, Anxiety, Stress and DASS-21, School Children

INTRODUCTION

Because of changes in the body, mind, and sexuality as well as the effect of maturity, adolescence is seen as a difficult time ^[1].

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It is an important time in a person's life, and it is concerning when mental illnesses like stress, anxiety, and depression occur. Poor academic achievement, a lack of contact with friends and family, substance addiction, a sense of abandonment, suicidal thoughts, and homicidal ideation are all consequences of these three diseases ^[2-4].

According to several studies, most individuals with mental illnesses report that their symptoms started during childhood and adolescence ^[5-7]. Roberts and his colleagues ^[8] reported that the prevalence of mental disorders among children and adolescents ranges from

1% to 51%, with a mean rate of 15.8% for adolescents. Depression is the fourth leading cause of all diseases, accounting for 4.4% of total burden ^[9].

These mental illnesses are common and have a significant impact, but basic care diagnosis and treatment have not always been up to par. Major depressive disorder, often known as clinical depression, is a prevalent yet dangerous mood condition. According to recent studies, depression may result from a confluence of biological, psychological, environmental, and hereditary variables. Although it might start in maturity, it can occur at any age. It is widely acknowledged that children and teenagers can experience depression. High levels of anxiety in youngsters are often the precursor of many chronic mood and anxiety problems in adulthood. Student depression is becoming more widely acknowledged as a serious mental health issue. The prevalence of depression has been increasing over time because of media coverage, increased awareness, and acknowledgement ^[10].

The average scores for stress, anxiety, and depression were 15.30 ± 3.93 , 10.34 ± 3.91 , and 6.26 ± 6.00 , respectively. There have been reports of psychological morbidity among medical undergraduate students from several different nations worldwide. There are not many studies in India that describe this problem ^[11,12].

Psychological anguish and eventual depression may result from a failure to manage performance pressure, fulfil parental expectations, and realise dreams. According to the National Crime Records Bureau (NCRB), in 2021, around 1% of suicides in India were caused by test failure ^[13-15].

According to a Rajasthani survey, 31.75% of students enrolled in coaching programs suffer from depression ^[16]. Aspiring students' psychological anguish has to be appropriately handled and given the weight it deserves. Early treatments can aid in reducing drug misuse and suicide, two consequences of sadness and anxiety ^[17].

This study was developed because it will be more advantageous for students and their families to address the issue at an early stage if we can determine the prevalence of mental health disorders among adolescents and students in connection with depression, anxiety, and stress at an early age.

MATERIALS AND METHODS

Study design- Cross-Sectional Study.

Study setting- Field practice area of Tertiary Care Centre.

Study period-July 2024 to August 2024.

Inclusion criteria- Students from selected schools in the field practice area and Students willing to participate.

Exclusion criteria- Those having a history of any psychiatric illness and those absent at the time of data collection.

Sampling Technique and Sample Size- Four schools were chosen for the study out of a total of eleven higher secondary schools using the non-probability convenience sampling approach. Following the collection of samples based on inclusion and exclusion criteria, 399 students were interviewed for this study.

Conduct of the Study

Data collection- Permission to conduct the study was obtained by contacting the principals of the chosen schools. A list of the school's enrolled pupils was acquired, along with their phone numbers. The pupils were called and given a thorough explanation of the study by the list. A pretested self-administered online questionnaire with an informed consent form on the first page and the questionnaire (which includes the DASS-21 scale15) on the following pages was used to collect data from the students who consented to participate in the study. These students were given the link to the Google form. A separate Google Form was used to collect agreement from the participants and informed consent from the parents of children under the age of 18.

Data compilation- The gathered information was classified correctly and placed into Microsoft Excel 2019 spreadsheets.

Statistical Analysis- Microsoft Excel 2019 and the Online Open EPI-Info software were used to examine the data. Frequencies were utilised to accurately characterise the data.

Ethical considerations- The ethical clearance was gained from the Institutional Ethics Committee.

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RESULTS

We had 58.9% males. The majority were Hindu – 79.2%, and most belonged to nuclear families -61.9%. Class III was a common socioeconomic status seen in 39.1% of cases (Table 1).

Variables		Frequency	(%)
Gender	Male	235	58.90
	Female	164	41.10
Religion	Hindu	316	79.20
	Muslim	78	19.55
	Christian	5	1.25
Type of Family	Nuclear	247	61.90
	Three Generation	143	35.84
	Joint	9	2.26
Socio- economic status	I	27	6.76
	П	46	11.53
	III	156	39.10
	IV	117	29.33
	V	53	13.28

Table 1: Socio-demographic profile of study participants

Severe depression was seen in 2 cases (0.5%) and extremely severe in 1 case (0.25%). Moderate in 59 cases (14.79%) and mild in 64 cases (16.04%) (Table 2).

Table 2: Prevalence of D	epression
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Category	Frequency	(%)
Normal	273	68.42
Mild	64	16.04
Moderate	59	14.79
Severe	2	0.50
Extremely	1	0.25

The prevalence of anxiety among participants revealed that the majority experienced mild anxiety, accounting for 27.32% (109 individuals). Moderate anxiety was observed in 13.79% (55 individuals), while severe anxiety was reported by 9.77% (39 individuals). Only a small proportion, 0.75% (3 individuals), exhibited extremely severe anxiety levels (Table 3).

Category	Frequency	(%)
Normal	193	48.37
Mild	109	27.32
Moderate	55	13.79
Severe	39	9.77
Extremely severe	3	0.75

The highest proportion had mild stress, seen in 47.37% (189 individuals). Moderate stress was present in 10.78% (43 individuals), while 5.26% (21 individuals) experienced severe stress. A smaller fraction, 1.25% (5 individuals), reported extremely severe stress (Table 4).

Table 4: Prevalence of Stress.

Category	Frequency	(%)
Normal	141	35.34
Mild	189	47.37
Moderate	43	10.78
Severe	21	5.26
Extremely	5	1.25
severe		

DISCUSSION

In this Cross-Sectional Descriptive study from July 2024 to August 2024, 399 Higher Secondary School students from four schools in the field practice area of the Tertiary Care Centre were studied with the help of the DASS-21 Scale.

The socio-demographic profile of study participants shows that the majority of participants were female (58.90%), Hindu (79.20%) by religion, nuclear family (61.90%) & belonged to class III (39.10%) as per Modified B.G. Prasad classification. Premkumar *et al.* ^[18] in their study found that the majority, i.e. 58.8%, were males. Barnawi *et al.* ^[19] in their study found that the majority, i.e. 79.5%, were males, which is comparable to the current study.

The prevalence of depression among study participants and the majority of participants with Depression are from the Mild category (16.04%), whereas 68.42% were Normal. The overall prevalence of Depression was 31.58%. Our result shows the prevalence of Anxiety among study participants, and the majority of participants with Anxiety are from the Mild category (27.32%), whereas 48.37% were Normal. The overall prevalence of Anxiety was 51.63%. This study shows the prevalence of stress among study participants, and the majority of participants with Stress are from the Mild category (47.37%), whereas 35.34% were Normal. The overall prevalence of Stress was 64.66%.

According to Kumar et al. ^[16], among 830 valid respondents, the prevalences of stress, anxiety, and depression were 21.1%, 24.4%, and 19.5%, respectively. It was shown that 81% of the individuals do not experience stress, 57.1% do not suffer from depression, and 53.4% do not suffer from anxiety ^[17]. As per Premkumar et al. [18], overall, 59.2% of individuals had depressive symptoms, while 100% of them had anxiety symptoms. In a study done by Barnawi et al. [19], the prevalence of anxiety was 35.2%, followed by depression (30.8%), and stress (14.7%). In Bhardwai et al. ^[20] studies, the mean score of depression, anxiety, and stress was 13.05±7.2, 14.09±6.7, and 15.6±7.1, respectively. Many other studies- Parkhe et al. [21] and Singh et al. [22] compared depression and stress about other habits like addiction and mobile usage in adolescents ^[21,22].

CONCLUSIONS

There was variation in the level of depression, anxiety and stress in the current study, which showed a higher percentage of anxiety in comparison to stress and depression. Higher anxiety, stress and depression could affect the individual's mental health both in the short and long term, which could hinder the academic growth as well as personal growth of students.

CONTRIBUTION OF AUTHORS

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